AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1.   (Currently Amended) A recording apparatus comprising:

extraction means for extracting an image from a unit in which a <u>constant number of</u> moving ~~image is~~ <u>images are included</u> ~~encoded, the unit including a constant number of images~~;

reduction means for reducing the amount of information of the extracted image;

encoding means for encoding the <u>extracted</u> image ~~whose~~ <u>with reduced</u> amount of information ~~is reduced~~ by a predetermined encoding scheme;

association means for associating the encoded image with the unit from which the image is extracted by the extraction means; and

recording control means for controlling recording of the <u>encoded</u> image associated with the unit <u>and controlling recording of moving images</u> onto a data recording medium ~~for recording the moving image~~,

wherein the recording control means <u>is configured to</u>:

determine an amount of data of moving images stored in a buffer;

~~controls~~ <u>control</u> recording of moving ~~image~~ <u>images</u> onto the data recording medium <u>when the amount of data of moving images stored in the buffer is no less than a first predetermined threshold,</u> such that the moving

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image ~~images~~ ~~in~~ corresponding to a predetermined

time interval ~~for playback is~~ are recorded in a first

contiguous area of the data recording medium; ~~and~~

after the recording of the moving images corresponding to

the predetermined time interval; determine an amount

of data of encoded images stored in the buffer; and

~~controls~~ control recording of encoded ~~image~~ images onto the

data recording medium when the amount of data of

encoded images stored in the buffer is no less than a

second predetermined threshold, such that the

encoded ~~image is~~ images are recorded in a second

contiguous area of the data recording medium ~~when~~

~~the amount of data of the encoded image exceeds a~~

~~predetermined threshold if the recording of the~~

~~moving image in the first area of the data recording~~

~~medium is ended~~.

2. (Previously Presented) The recording apparatus according to claim 1, wherein
the association means is a track associated with a track of the moving image and
associates the encoded image with the unit by arranging the encoded image in a
track in a predetermined file format.

3. (Previously Presented) The recording apparatus according to claim 1, wherein
the association means associates the encoded image with the unit by associating
a range of time for playback of the unit of the moving image with the encoded
image.

4.   (Cancelled)

5.   (Previously Presented) The recording apparatus according to claim 1, wherein the encoding means encodes the image by a compression and encoding scheme for a static image.

6.   (Previously Presented) The recording apparatus according to claim 1, wherein the encoding means encodes the image by a compression and encoding scheme for a moving image such that decoding is possible only with the image.

7.   (Previously Presented) The recording apparatus according to claim 1, wherein the reduction means reduces the amount of information of the image by thinning out pixels of the image.

8.   (Previously Presented) The recording apparatus according to claim 1, wherein the reduction means reduces the amount of information of the image by removing a high-frequency component of the image.

9.   (Currently Amended) A recording method comprising:

an extraction step of extracting an image from a unit in which a constant number of moving ~~image is~~ images are included ~~encoded, the unit including a constant number of images~~;

a reduction step of reducing the amount of information of the extracted image;

an encoding step of encoding the <u>extracted</u> image ~~whose~~ <u>with reduced</u>

amount of information ~~is reduced~~ by a predetermined encoding

scheme;

an association step of associating the encoded image with the unit from

which the image is extracted in the extraction step; and

a recording control step of controlling recording of the <u>encoded</u> image

associated with the unit <u>and controlling recording of moving images</u>

onto a data recording medium ~~for recording the moving image~~,

wherein the recording control step ~~comprising~~ <u>comprises</u>:

determining an amount of data of moving images stored in a

buffer;

controlling recording of the moving ~~image~~ <u>images</u> onto the

data recording medium <u>when the amount of data of</u>

<u>moving images stored in the buffer is no less than a</u>

<u>first predetermined threshold,</u> such that the moving

~~image~~ <u>images</u> ~~in~~ <u>corresponding to</u> a predetermined

time <u>interval</u> ~~for playback is~~ <u>are</u> recorded in a first

contiguous area of the data recording medium; ~~and~~

<u>after the recording of the moving images corresponding to</u>

<u>the predetermined time interval; determining an</u>

<u>amount of data of encoded images stored in the</u>

<u>buffer; and</u>

controlling recording of the encoded ~~image~~ <u>images</u> onto the

data recording medium <u>when the amount of data of</u>

<u>encoded images stored in the buffer is no less than a</u>

<u>second predetermined threshold,</u> such that the

encoded ~~image is~~ images are recorded in a second

contiguous area of the data recording medium ~~when~~

~~the amount of data of the encoded image exceeds a~~

~~predetermined threshold if the recording of the~~

~~moving image in the first area of the data recording~~

~~medium is ended~~.

10.   (Currently Amended) A recording medium storing a program causing a computer

to perform recording processing comprising:

an extraction step of extracting an image from a unit in which a constant

number of moving ~~image is~~ images are included ~~encoded, the unit~~

~~including a constant number of images~~;

a reduction step of reducing the amount of information of the extracted

image;

an encoding step of encoding the extracted image ~~whose~~ with reduced

amount of information ~~is reduced~~ by a predetermined encoding

scheme;

an association step of associating the encoded image with the unit from

which the image is extracted in the extraction step; and

a recording control step of controlling recording of the encoded image

associated with the unit and controlling recording of moving images

onto a data recording medium ~~for recording the moving image~~,

wherein the recording control step ~~comprising~~ comprises:

determining an amount of data of moving images stored in a

buffer;

controlling recording of the moving ~~image~~ images onto the

data recording medium when the amount of data of

moving images stored in the buffer is no less than a

first predetermined threshold, such that the moving

~~image~~ images ~~in~~ corresponding to a predetermined

time interval ~~for playback is~~ are recorded in a first

contiguous area of the data recording medium; ~~and~~

after the recording of the moving images corresponding to

the predetermined time interval; determining an

amount of data of encoded images stored in the

buffer; and

controlling recording of the encoded ~~image~~ images onto the

data recording medium when the amount of data of

encoded images stored in the buffer is no less than a

second predetermined threshold, such that the

encoded ~~image is~~ images are recorded in a second

contiguous area of the data recording medium ~~when~~

~~the amount of data of the encoded image exceeds a~~

~~predetermined threshold if the recording of the~~

~~moving image in the first area of the data recording~~

~~medium is ended~~.

11.   (Cancelled)

12.   (Currently Amended) A playback apparatus comprising:

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reading control means for controlling reading an image from a data

recording medium recording [[a]] moving ~~image~~ images and the

image, the image being extracted from a unit in which a constant

number of ~~the~~ moving ~~image is~~ images are included ~~encoded, the~~

~~unit including a constant number of images~~, the amount of

information of the image being reduced, the image being encoded

by a predetermined encoding scheme, the image being associated

with ~~each~~ the unit, the moving ~~image~~ images being recorded onto

the data recording medium when an amount of data of moving

images stored in a buffer is determined to be no less than a first

predetermined threshold such that the moving ~~image~~ images ~~in~~

corresponding to a predetermined time interval ~~for playback is~~ are

recorded in a first contiguous area of the data recording medium,

the encoded image being recorded onto the data recording medium

after the recording of the moving images corresponding to the

predetermined time interval, and when an amount of data of

encoded images stored in the buffer is determined to be no less

than a second predetermined threshold such that the encoded

image is recorded in a second contiguous area of the data

recording medium ~~when the amount of data of the encoded image~~

~~exceeds a predetermined threshold if the recording of the moving~~

~~image in the first area of the data recording medium is ended~~, and

the reading being based on an instruction from a user and a

relationship with the unit ~~of the moving image~~;

decoding means for decoding the ~~read out~~ image; and

display control means for controlling display of the decoded image.

13.   (Previously Presented) The playback apparatus according to claim 12, wherein the reading control means controls reading the image from the data recording medium so as to read only the image if the user directs a fast-forward operation or a rewind operation.

14.   (Previously Presented) The playback apparatus according to claim 12, wherein the decoding means decodes the image encoded by a compression and encoding scheme for a static image.

15.   (Previously Presented) The playback apparatus according to claim 12, wherein the decoding means decodes the image encoded by a compression and encoding scheme for the moving image such that decoding is possible only with the image.

16.   (Currently Amended) A playback method comprising:

        a reading control step of controlling reading an image from a data recording medium recording [[a]] moving ~~image~~ images and the image, the image being extracted from a unit in which a constant number of ~~the~~ moving ~~image is~~ images are included ~~encoded, the unit including a constant number of images~~, the amount of information of the image being reduced, the image being encoded by a predetermined encoding scheme, the image being associated with ~~each~~ the unit, the moving ~~image~~ images being recorded onto the data recording medium when an amount of data of moving images stored in a buffer is determined to be no less than a first

predetermined threshold such that the moving ~~image~~ images ~~in~~

corresponding to a predetermined time interval ~~for playback is~~ are

recorded in a first contiguous area of the data recording medium,

the encoded image being recorded onto the data recording medium

after the recording of the moving images corresponding to the

predetermined time interval, and when an amount of data of

encoded images stored in the buffer is determined to be no less

than a second predetermined threshold such that the encoded

image is recorded in a second contiguous area of the data

recording medium ~~when the amount of data of the encoded image~~

~~exceeds a predetermined threshold if the recording of the moving~~

~~image in the first area of the data recording medium is ended~~, and

the reading being based on an instruction from a user and a

relationship with the unit;

a decoding step of decoding the ~~read-out~~ image; and

a display control step of controlling display of the decoded image.

17.   (Previously Presented) A recording medium storing a program causing a

computer to perform playback processing comprising:

a reading control step of controlling reading an image from a data

recording medium recording [[a]] moving ~~image~~ images and the

image, the image being extracted from a unit in which a constant

number of ~~the~~ moving ~~image is~~ images are included ~~encoded, the~~

~~unit including a constant number of images~~, the amount of

information of the image being reduced, the image being encoded

by a predetermined encoding scheme, the image being associated

with ~~each~~ the unit, the moving ~~image~~ images being recorded onto the data recording medium <u>when an amount of data of moving images stored in a buffer is determined to be no less than a first predetermined threshold</u> such that the moving ~~image~~ images ~~in~~ <u>corresponding to</u> a predetermined time <u>interval</u> ~~for playback is~~ <u>are</u> recorded in a first contiguous area of the data recording medium, the encoded image being recorded onto the data recording medium <u>after the recording of the moving images corresponding to the predetermined time interval, and when an amount of data of encoded images stored in the buffer is determined to be no less than a second predetermined threshold</u> such that the encoded image is recorded in a second contiguous area of the data recording medium ~~when the amount of data of the encoded image exceeds a predetermined threshold if the recording of the moving image in the first area of the data recording medium is ended~~, and the reading being based on an instruction from a user and a relationship with the unit;

a decoding step of decoding the ~~read out~~ image; and

a display control step of controlling display of the decoded image.

18.   (Cancelled)